GLOBAL DIVERSITY OF CASSAVA: COMPARATIVE STUDY OF CASSAVA ROOTS FLESH COMPOSITION

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The International Center for Tropical Agriculture in Cali, Colombia, is a member of the CGIAR, the Consulttaive Group for International Agriculture Research in Washington, USA. CIAT has been mandated to preserve and to conduct reserach on cassava. Consequently, this Center has been collecting wild and cultivated cultivars for about 35 years. About 6500 clones from tropical regions are preserved in CIAT in the form of vitroplants as well as in cultivated plants in the field. A primary global study on diversity started in 1991 and 1993 (wheatley & al. 1993) with a core collection of 650 clones. At the same time, Bokanga Mpoko from IITA, and Ibadan from Nigeria, started a study on diversity and cynogenetic compounds from the collection from IITA and on hundreds of cultivars from Africa (Cameroun). Thanks to these studies, Zakhia & al. in 1994 have identified a correlation between viscoamylographics properties of starch and cynogenetic compounds from the roots. In 2005 CIRAD, the French Agricultural Research Center for International Development in France, and CIAT- Colombia have decided to strenghten these studies by conducting more specific research on flesh roots composition and starch functional properties in order to assess the major variations already identified in terms of cassava strach quality depending on the agroecological regions and cultivars. First results presented at the AUF seminar were obtained by selectioning the different clones on their cyanide compositions, dry matter content and amylose content. These studies allow to better explain the consumer choices for selecting some food products of which specific textural properties are targeted.

REFERENCES

1. Wheatley, C. C; Orrego, J. I; Sônchez, T; and Granados, E. 1993. Quality evaluation of the cassava core collection at Ciat. In: Roca, W.M. and Thro, A.M. Proceedings of the First International Scientific Meeting of the Cassava Biotechnology Network, Cartagena de Indias, Colombia, 25-28. Working document no. 123. CIAT, Cali, Colombia. p. 255 - 264. (August 1992)
2. Bokanga, M, 1994. Distribution of cyanogenic potential in cassava germplasm. Acta Horticulturae 375, Cassava Safety, Page 117-123.
3. Zakhia, N; Wheatley C.: O'Brien, G. and Dufour, D. Screening of Ciat cassava germplasm diversity: The relationship between cyanogenic potential and cassava starch functional properties. The Cassava Biotechnology Network. Proceedings of the Second International Scientific Meeting. Bogor, Indonesia, 22 - 26. Volume II (August 1994)

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